

CLAIMS

1. A manufacturing method for an oxide-dispersed alloy in which dispersed particles consisting of oxides of one or two or more kinds of additive metals are dispersed in a matrix metal, comprising the steps of:
 - (a) manufacturing alloy powder or an alloy wire rod consisting of the matrix metal and the additive metal;
 - (b) oxidizing the additive metal in the alloy powder by water to form dispersed particles by introducing the alloy powder or alloy wire rod into a high-energy ball mill with water and by making agitation; and
 - (c) molded in solidifying the alloy powder or alloy wire rod after oxidation.
2. The manufacturing method for an oxide-dispersed alloy according to claim 1, wherein the alloy powder is agitated by using an attritor, Dyno-mill, or Ultra Visco Mill as the high-energy ball mill in step (b).
3. The manufacturing method for an oxide-dispersed alloy according to claim 1 or 2, wherein the water introduced into the high-energy ball mill in step (b) is ultrapure water.
4. The manufacturing method for an oxide-dispersed alloy according to any one of claims 1 to 3, wherein the alloy molded in solidified in step (c) is subjected to plastic forming of at least any of forging, rolling, extruding, and drawing.
5. The manufacturing method for an oxide-dispersed alloy according to any one of claims 1 to 4, wherein the matrix metal is a metal in which the free

energy of oxide formation thereof is higher than water standard free energy of formation , and the additive metal is a metal in which the free energy of oxide formation thereof is lower than water standard free energy of formation.

- 5 6. The manufacturing method for an oxide-dispersed alloy according to any one of claims 1 to 5, wherein the matrix metal consists of one or two or more metals of gold, silver, platinum, palladium, iridium, rhodium, and ruthenium, and the additive metal is titanium, zirconium, hafnium, scandium, yttrium, magnesium, calcium, strontium, barium, aluminum, silicon,
- 10 lanthanum, cerium, praseodymium, neodymium, samarium, europium, gadolinium, terbium, dysprosium, or holmium.